

## **Reducing Base-level Excess AWP Items**

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# Executive Summary

**Problem:** The Air Force Supply Executive Board (AFSEB) indicated that there is an excessive amount of end items in Awaiting Parts (AWP) status at base level. Also, the items seem to remain in AWP status for long periods of time. The AFSEB is concerned that the AFMC repair prioritization system is not effectively repairing the shop replaceable units (SRUs) needed to repair the AWP end items or line replaceable units (LRUs). The focus of this study is to determine what the Air Force can do to reduce the number of AWP conditions and the respective time in AWP status at base level.

**Objective:** Develop and test business rules to reduce the number of base-level AWP conditions.

**Conclusions:** The Air Force has over 15000 AWP end items at the bases and for 63 percent of the items (base and worldwide excess items) there is little or no chance to reduce that number of AWP's with today's system. EXPRESS 3.1 implemented the AFSEB approved proposal to prioritize the SRU with the LRU priority for all AWP LRU conditions including Spares Priority Release Sequence (formally BOA Release Sequence) category items. Implementing our proposed business rule to redistribute serviceable items from bases with excess AWP to bases with a greater need will increase the AF's aircraft availability, reduce expected backorders, and increase the repair priority of SRUs, thereby reducing the number of AWP conditions. Implementing our business rule to NRTS worldwide excess AWP LRUs will prevent the base from inefficiently using stock fund dollars to repair unneeded items, allow for accurate recording of failures and improve retention and requirements computations, and significantly reduce the number of AWP items at the base. Implementing an AWP Reporting system will link the SRU to the specific LRU AWP occurrence, ensure the SRU gets the correct repair and distribution priority, and provide a means to update and correct AFMC's indenture file automatically. Implementing our AWP proposals will increase the AF mission support by reducing backorders and increasing aircraft availability, make better use of stock fund dollars, reduce base AWP, increase SRU repairs (using the right priority), and automate the base and worldwide excess business rules.

## Recommendations:

1. Implement our business rule to redistribute serviceable items from bases with excess AWP assets to bases where it will reduce worldwide EBOs. **OPR: HQ AFMC/LG and the IL SPO (Seamless IPT 1)**
2. Implement our business rule to direct return of worldwide excess items. **OPR: HQ AFMC/LG and the IL SPO (Seamless IPT 1)**
3. Implement our proposed AWP Reporting System. **OPR: IL SPO (Seamless IPT 1)**

# TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY.....	i
LIST OF TABLES AND FIGURES.....	ii
CHAPTERS	
1 INTRODUCTION .....	1
Background.....	1
Problem Statement.....	1
Objective.....	1
2 ANALYSIS .....	2
Quantifying The Number of AWP Occurences .....	2
AWP Within The Base RO.....	3
AWP Excess To The Base RO .....	5
Worldwide Excess AWP LRUs.....	9
Implementation Actions.....	11
3 CONCLUSIONS AND RECOMMENDATIONS .....	13
Conclusions .....	13
Recommendations.....	14
APPENDICES .....	15
A Plan for Addressing Excess AWPs.....	15
B Awaiting Parts (AWP) and Execution and Prioritization of Repair Parts Support System (EXPRESS).....	20
C AWP Reporting Requirements .....	23
LIST OF TABLES AND FIGURES	
Table 2-1 Impact of SRU Enhancement in Express 3.1 .....	5
Table 2-2 Express Metrics .....	5
Table 2-3 Lateral Supply Actions .....	7
Table 2-4 Examples .....	8
Table 2-5 Worldwide Express Examples .....	11

## **CHAPTER 1**

### **INTRODUCTION**

#### **BACKGROUND**

The Air Force Supply Executive Board (AFSEB) was concerned about the excessive amount of end items in awaiting parts (AWP) status at the bases. The AFSEB claimed not only were there many AWP items, but they remained in AWP for long periods of time. The AFSEB implied the AFMC repair prioritization system was not effectively repairing the parts (shop replaceable units—SRU) needed to fix the end items (line replaceable units—LRU).

#### **PROBLEM STATEMENT**

What can the Air Force do to reduce the number (and length of time to resolve) AWP conditions at the bases? What changes should the AF make to improve AWP management?

#### **OBJECTIVE**

The objective of this study is to develop and test business rules to reduce the number of base-level AWP.

## CHAPTER 2

### ANALYSIS

#### Overview

We divide this chapter into five parts. First we quantify the problem and identify the number of AWP conditions. The next three parts analyze each category of AWP and present proposals to reduce the number of their occurrences. The three categories are: (1) AWP within the base requisitioning objective (RO), (2) AWP excess to the base RO but not excess to the worldwide (sum of all the base's) RO and (3) excess to the base and worldwide RO. Finally we discuss actions needed to implement our proposals.

#### **Quantifying The Number Of AWP Occurrences**

The AFMC Studies and Analysis Office (SAO/XPS) performed most of the analysis in this project. Appendix A documents an outline of their plan for the analysis. Using a 13 August 1999 EXPRESS database snapshot of Stock Control System data, we estimated the number of AWP occurrences existing at that point in time. EXPRESS does not have explicit visibility of end item AWP, so we inferred it from base DIFM. Later analysis by ACC confirmed that 85% of DIFM are AWP. There were 15750 AWP occurrences as of 13 August. Also, subsequent snapshots have been taken essentially resulting in the same numbers.

Next we categorized the AWP occurrences into three categories. We used three categories because the management action to reduce the number of occurrences in each category would vary.

The first categorization is for **AWP items that are within the base RO**. (That is all serviceable on-hand assets plus any due-ins plus due-in-from-maintenance (DIFM) to include all AWP's were less than the base authorized level including peacetime, readiness spares, and additive levels). The end items (LRU) are needed to fill an authorized level at that base. The component SRU(s) should be repaired to ensure enough availability of subcomponents to fix enough LRUs so that the authorized level is obtained. There were 5836 AWP end items in this category, roughly 37 percent of the total.

The second category is **AWP excess to the base RO, but within the sum of all base ROs**. These items are needed at another base, but are not needed currently to fill an authorized level at the base where the AWP item is. There were 2354 occurrences in this category, roughly 15 percent of the total. Since the current AFMC repair prioritization system looks only at one base at a time to determine repair requirements, these items appear to have no need to repair. However, to the extent they satisfy some other AF need, the AF could (and should) provide the component parts to repair the AWP end item.

The final category is **items excess to the base and worldwide RO**. The end item is not needed—all authorized levels are accounted for (either serviceable on-hand, intransit or other items being repaired—in DIFM—are available to meet their authorized levels). There were 7560 items in that category. So 48 percent of the end items AWP at bases would, if repaired, be excess to worldwide base level requirements. It is not clear that the AF should repair the component parts to fix any of these unneeded items.

We need to make one definition clear at this time. We define “excess” to mean assets exceeding the base RO (base excess) and exceeding the sum of the all the bases’ ROs for worldwide excess. These items are not excess in the sense that they are excess to the total AF stockage and retention needs. The on-hand levels at the bases are well within AF retention levels.

In the next three parts of this report we discuss the analysis and proposals to reduce the number of AWP conditions that are within the base RO, over the base RO but within the worldwide RO and excess to both the base and worldwide RO.

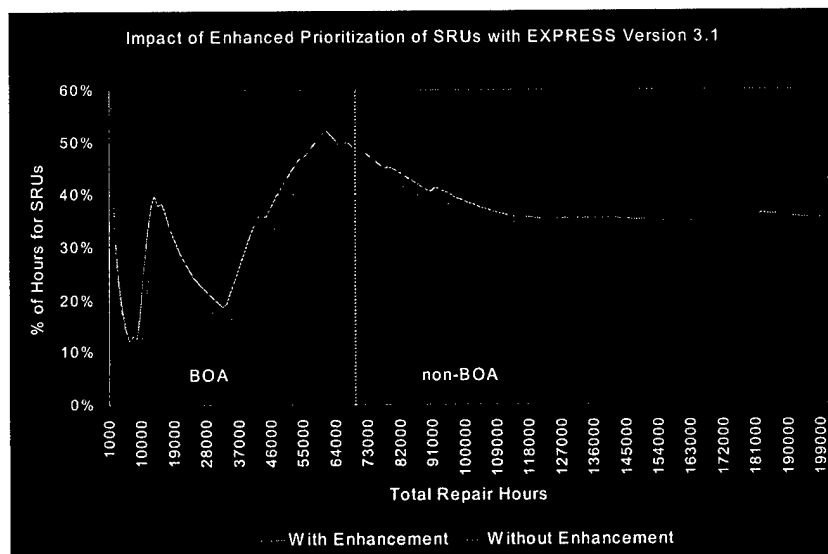
### **AWP Within The Base RO**

For the August 1999 snapshot, there were 5836 AWP occurrences within the base RO. We want to determine why there are so many—is there a bias in the AFMC repair prioritization system (EXPRESS) that prevents or delays providing the SRU component parts to repair the AWP end item.

For MICAP and other customer due-outs, the base requisitions both the LRU (end item) and the SRU (component recoverable items) for AWP occurrences. Pure EXPRESS logic prioritizes the SRU higher than the AWP LRU. That is EXPRESS sees the SRU as cheaper (less repair cost) for the depot to repair to fix the LRU at the base than it is to repair the LRU at the depot. So one would conclude that there is a bias to fix SRUs. However there are two issues that could prevent pure EXPRESS logic from repairing the SRU.

First EXPRESS may not always link the SRU to the AWP LRU. EXPRESS uses the AFMC application and indenture file to link AWP requisitions (6L advice code) to the LRU end item. So EXPRESS does not have information to link a specific SRU to a specific LRU AWP occurrence. And of course dirty data can prevent an accurate LRU-SRU linkage.

Secondly the AF had modified EXPRESS to prioritize certain requisitions differently (higher categories) than pure EXPRESS logic. The Spares Priority Release Sequence, SPRS, (previously called the BOA release sequence) will prioritize certain project coded requisitions (JCS coded, MICAPs, and 700 project coded) into special higher categories that override EXPRESS logic. For these items EXPRESS would not assign the SRU the special SPRS priority, but rather the pure EXPRESS priority the LRU would earn. In these as well as most other cases (over 70 percent reparable item due-outs are MICAP,



**Table 2-1 Impact of SRU Enhancement in Express 3.1**

which receive a SPRS priority) modified EXPRESS was biased towards repairing and providing the end item and not the SRU (component part).

The AFSEB approved changes to address these two issues. First, the AFSEB approved an AWP Reporting system to link SRU component requisitions to the specific AWP LRU occurrences (not just to an LRU). We'll discuss the AWP reporting system more in the last part of this chapter. Secondly, the AFSEB approved and AFMC implemented a change to EXPRESS (EXPRESS 3.1) to assign SPRS priorities to SRUs for AWP occurrences. EXPRESS 3.1 assigns the LRU SPRS priority to the SRU and maintains an SPRS priority for the LRU. However, the LRU's priority is a lower "pseudo" SPRS category than the project code on the LRU (that was assigned to the SRU). In essence, EXPRESS 3.1 removes the bias against the SRU repair, thereby reinstating the (original pure EXPRESS) logic of prioritizing the SRU higher than the AWP LRU.

AFMC is measuring the performance of EXPRESS 3.1 and Table 2-1 and 2-2 provide the metric results AFMC provided to the 64<sup>th</sup> AFSEB.

Table 2-1 shows a side-by-side comparison of two EXPRESS runs using the same data: "With Enhancement", where the AFSEB-approved changes were made, and "Without Enhancement", where the changes were not made. The graph shows the percent of total depot repair hours that EXPRESS recommends be spent on SRUs as you go further down the EXPRESS priority list. The vertical line represents the point on each prioritized list where the BOA priorities end (about 70,000 depot repair hours). This is significant because the AFSEB-approved enhancement only impacts BOA priorities. The graph shows that within BOA priorities the enhanced EXPRESS will prioritize SRUs more highly. This illustrates that the AFSEB changes have the desired effect on the EXPRESS priorities.



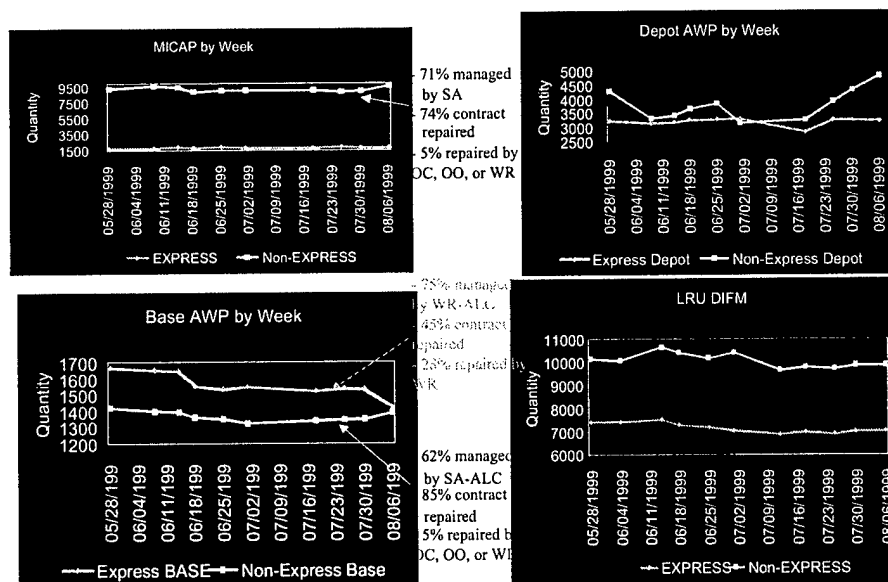


Table 2-2 Express Metrics

The next table, Table 2-2, shows the real-world effect of these changes on customer support. Specifically, the bottom two charts show that base AWP and LRU DIFM for EXPRESS items decreased from the time the change was implemented (May 99). Further tracking of these measures show a continued improvement as of the publishing of this report.

### AWP Excess To The Base RO

Next we analyze the 2354 AWP items excess to the base RO but not excess to the worldwide RO. Today EXPRESS prioritizes the SRU as it would prioritize the LRU *at that base*. Since the LRU is excess to the base RO, EXPRESS prioritizes the SRU (and the LRU) with a relatively low priority. The logic seems correct for that base, but what if the LRU is needed at another base? Wouldn't it be in the AF's best interest to provide the SRU (the cheaper repair) to the base and laterally ship the (repaired) serviceable to the base with the need? Clearly that is a more efficient way to meet the AF need than for the depot to repair an LRU (assuming there is a carcass at the depot) and leave the reparable LRU at the AWP base.

We illustrate with an example. Suppose the LRU asset position for two bases is:

Base A: RO=10, Serviceable=8, AWP=6

Base B: RO=10, Serviceable=0, AWP=0

The EXPRESS priorities to provide components for the 6 AWP at Base A is relatively low, but 4 of the AWP priorities will be very low (probably never be repaired), because they exceed the base's RO. In fact EXPRESS would cap the last 4 LRU requisitions (if they were requisitioned). However, Base B would have a relatively high priority need for the LRU. EXPRESS today has no way to assign Base B priorities to the SRU requisitions at Base A.

So we want to analyze ways to give priority to the SRU at Base A as if the AWP condition existed at Base B. That is instead of the depot fixing the LRU to send to Base B, EXPRESS would provide an SRU to Base A to fix the LRU and send the LRU to Base B. Since this approach depends on movement of assets (either lateral resupply or redistribution) between bases, we conducted some analysis to see if doing these movements alone (shipping a serviceable from one base to a base with a higher need) would improve support and thereby increase EXPRESS priorities for SRU repair. The analysis utilized AFMC's Supply Chain Operational Performance Evaluator (SCOPE) simulation model with actual EXPRESS data. Table 2-3 provides the results.

	Frequency of Lateral Supply Actions →			
	No Laterals	Laterals for MICAPs	Lateral for 0 Balance	Repair lateral for 0 balance
Aircraft Availability	65.0%	73.0%	78.7%	78.6%

**Table 2-3 Lateral Supply Actions**

The current policy laterally ships for MICAPs and achieves 73 percent availability. Note laterals improve support over cases with no lateral shipments allowed (from 65 to 73 percent). If we allow lateral shipments to replenish stock for 0 balance conditions (like Base B above), aircraft availability increases to 78.7 percent. Up to the last entry in Table 2-3, we assumed only lateral support actions with no changes to EXPRESS. That is, we would ship one of the 8 serviceables from Base A to Base B. For the last entry, we provide Base A the SRU component and then lateral the repaired LRU (the 9<sup>th</sup> serviceable) to Base B. Shipping after the repair improves performance over the no lateral and lateral for MICAP only (today's policy), but is slightly less effective than laterally shipping before the repair. The important point is that effective lateral resupply of assets seems to be more influential than changing depot repair policy.

So basically there is a **potential to increase the AF's aircraft availability by redistributing assets from bases with excess AWP to bases with a higher need.** And

there is an added benefit from increasing the repair priority for SRUs at the base where the asset was shipped. The increase in the SRU priority will provide more efficient repairs (depots repair the SRUs rather than the LRUs) and eventually provide more serviceable LRUs to the bases. Now the question is how to develop the business rules to determine when and where to ship from (the donor base) and where to ship to (the recipient base).

In developing our business rule, we wanted to take a conservative approach. We want to laterally ship from a base with excess assets (although we exclude excess *serviceable* assets since the AF Redistribution System will redistribute those assets) to a base with more need thereby reducing the worldwide expected backorders (EBOs). Shipping from the excess base will increase the priority of the SRU repair. So we wanted to ship assets that will decrease EBOs by enough to justify the shipping cost and also not "overly penalize" the donor base. That is redistributing the asset would increase the SRU priority enough to give the donor base a reasonable chance to get the SRU to generate a serviceable LRU, thereby replacing the asset the base shipped.

The "conservative" business rule we developed identified about 150 units for potential redistribution. We limited our potential candidate items to EXPRESS managed LRU and SRUs, since the goal is to increase SRU priorities in EXPRESS. The business rule is to:

**Redistribute serviceable items from a base with excess (total) assets where it will reduce EBOs by at least .01. We limit the donor bases to only bases that have more than 50 percent of serviceable assets on hand compared to their RO. And will not ship to a base with on-hand assets (not counting non-shipped due-ins) at or above its RO. We also include all available units (i.e., DIFM assets) in the EBO calculation.**

Table 2-4 provides some real life examples of our business rule

Donor Base			Receiving Base			EBO
RO	Serv	Other	RO	Serv	Other	Change
5	4	7	6	0	0	.77
7	9	2	7	3	0	.42
7	8	2	7	3	0	.22
51	40	22	5	1	0	.17

Total EBO Change

Table 2-4 Examples

For the first item listed in Table 2-4 the business rule suggested a serviceable item be redistributed from the donor base with an RO of 5, 4 serviceables on-hand and 7 other (DIFM including AWP) to the receiving base with an RO of 6 and no assets available. Redistributing this asset reduces worldwide EBOs by .77.

Our business rules identified 152 items to redistribute out of a total of about 300 items where both the LRU and the SRU were managed by EXPRESS and there was a base excess. The remaining items (about 2000) fell out because they were not EXPRESS-managed LRUs that had EXPRESS managed SRUs causing the AWP. Redistributing the assets not only increases the SRU repair priority, but it also reduces worldwide EBOs. Without the redistribution, there is little or no chance the donor base will receive an SRU with the current system.

When we presented this proposal to the AFSEB, there was a suggestion to redistribute the reparable AWP LRU to the receiving base rather than the serviceable. This would achieve the highest SRU repair priority because the donor bases (with our business rule) is always going to have a better support posture (more assets against its RO) than the receiving base. However, redistributing the reparable item will delay the item being serviceable at the receiving base, thereby achieving slightly less EBO reduction. Secondly, the donor base will lose its chance to get O&M credit since it will not repair the item. So the donor base will be motivated not to ship the reparable. Finally as a business policy, shipping the reparable will be harder to implement. Not all bases will have the capability to repair the LRU, so EXPRESS (or whatever system identifies donor and receiving bases) will have to know base repair capabilities for each item for each base.

So we prefer our business rules that redistributes serviceable assets. However, there may be some benefit in changing EXPRESS to assign the SRU repair priorities (for repair at Base A) to the need at Base B. That is the SRU would have the repair priority of the LRU at the donor base. So we would consider adding to the business rule above that:

**The SRU be prioritized using the recipient base's LRU priority.**

Note do not delay the shipment, but provide the priority for the SRU to increase the chance of providing an SRU to replenish the LRU the donor base shipped.

During the MAJCOM review of the list of items to be redistributed by our proposed business rule, two questions arose. First, ACC wondered why there were so relatively few items (152) identified for redistribution. The reason for the relatively small number is that we limited the list to cases that EXPRESS managed both the LRU and the SRU. If we include all AWP cases (non-EXPRESS managed items as well), we include 3148 cases.

The second comment came from AMC and they wanted to: limit the redistribution to not redistribute a serviceable asset from the Readiness Spares Package (RSP). Changing the business rule to:

**Limit the donor bases to only bases that have more than 50 percent of serviceable assets on hand compared to their RO and only to redistribute non-RSP serviceable assets;**

would reduce the 3148 redistributable items by 730 items. AMC proposed addition makes our business rule more conservative and although it lessens the impact of backorder reduction, it is a reasonable suggestion.

The AFSEB agreed to have ACC test our proposal and actually redistribute serviceable items with excess AWP to bases with a higher need. We discuss the proposal further in the implementation actions part later in this chapter.

### **Worldwide EXCESS AWP LRUs**

The last remaining issue is what to do with base AWP LRUs that are excess to both base and worldwide needs. There are approximately 1600 NSNs and 7560 worldwide excess AWP LRU occurrences (as of August 1999). The exchange price that would be credited to the bases upon repair and turn-in of these items is approximately \$42M. The average amount of base excess for these items was nearly 2, but one case had 106 AWP over the RO. EXPRESS cannot differentiate an AWP LRU from any other DIFM detail. So we had ACC validate the list of excess DIFM and they reported over 85 percent of DIFM were AWP.

Again nearly half of the AWP at the bases are excess to worldwide (base-level) needs. And the situation will not get any better; it will only get worse. Bases are collecting and holding LRU carcasses and will never get the SRUs to repair them. Nor should they. The AF should not spend resources (and grant Materiel Support Division, MSD, credit) to fix unneeded assets. So the number of AWP assets excess to worldwide needs won't get any better unless some action is taken.

The AFSEB tasked us to develop a business rule and procedures to direct the bases to return (not repairable this station—NRTS) worldwide excess AWP. Again we wanted to take a conservative approach—the AF should only NRTS worldwide excess items that have little or no chance of being needed at the base that ships the item. We wanted to develop a business rule that did not just identify excess, but *really* excess items. So our business rule projected for current needs as well as needs forecasted two years into the future. When projecting needs, we also considered DIFM as demands, because demands are not recorded until turn-in. We didn't want to direct a turn-in and NRTS an item that would increase the demand rate and perhaps increase the RO. In essence, we didn't want to force a shipment for an item that could have been within the new RO after the turn-in and demand was recorded.

Our business rule then is to:

**NRTS worldwide excess from the base with the most excess if (and until) the existing assets were 10 times more than the expected pipeline.**

We tested 10, 20 and 50 times the expected pipeline, but our proposal is to NRTS items exceeding 10 times the pipeline. (The expected pipeline is the expected demand during the repair and replenishment time). Table 2-5 provides 4 examples of items meeting our business rule.

<u>NIIN</u>	<u>RO</u>	<u>OH/Due-in</u>	<u>DIFM</u>	<u>New DDR</u>	<u>Days Of Supply</u>	<u>Pipeline Time</u>	<u>Days of Supply Pipeline Time</u>
013565562	3	27	30	.0866	381	3.05	125
013580038	8	3	157	.3965	403	3	134
012947958	12	20	4	.0101	1584	3	528
014114854	51	40	22	.4101	151	6.24	24

**Table 2-5 Worldwide Excess Examples**

Note the first item in Table 2-5 has a RO of 3 with 27 on-hand or due-in plus 30 in DIFM (AWP). To determine the days of supply, we add the RO to the amount of excess DIFM and divide by the daily demand rate (DDR), considering the DIFM assets as demands. On the first item, the days of supply are 381  $((3+30)/.0866)$ . Note, we take a very conservative approach and do not count all of the 27 assets on-hand; we only count up to the RO. To get our multiple of the pipeline (the last column), we divide days of supply by the pipeline time. For the first item on Table 2-5, existing assets are 125 times the pipeline  $(381/3.05)$ . Now, look at the last item in Table 2-5. In this case there are only 11 DIFM assets excess, so days of supply is the RO plus excess DIFM divided by the new DDR  $((51 + 11)/.4101)$  which equals 151. The multiple of the pipeline is 24.

Of the 1523 units (\$19.7M exchange cost) worldwide excess (total of EXPRESS managed items), our business rule identified 1043 (\$11.5M) units with the 10 times the pipeline rule, 668 (\$7.4M) with the 20 rule and 222 (\$.6M) with the 50 rule. The items that the rule proposes be NRTSed have little or no chance of ever being needed at that base.

When we presented our proposal to the AFSEB they wondered why the AF should return these reparable to the depot rather than leave the items at the base. Since the depot will merely store these assets, why spend dollars to ship the items? Note these

are DIFM (AWP) items so they are in a maintenance repair shop. Neither the base maintenance nor the Standard Base Supply System (SBSS) is well suited for storing and managing reparable (not to be repaired) parts. In addition returning these items provides three other significant benefits. First, it prevents the base from repairing these items (should they obtain the necessary component parts) and spending stock fund dollars unwisely. Secondly, turning the items in will record demand data, thereby improving the AF's stock level and retention requirements. Finally, if the AF should ever need these items in the future, there is a better potential for centralized cross canning of parts. Additionally, if the item contains components, which could be used to make other items serviceable that are needed, it provides immediate cross-canning opportunities.

Note there is no real impact on the base O&M funds from turning these reparable items in. Today the O&M in AWP is carried as "float" and the money is not available to the maintenance organization. Since they probably will not be repaired there will be no credit to maintenance. Turning the items in reparable then will merely "clear the float".

Note that returning worldwide excess AWP end items will result in the depot returning carcasses with "holes" (SRUs missing). The AF Stockage Policy Workgroup recommended that the AF identify these LRUs with holes by directing the bases to return the items to the depot, condition code G (AWP) status rather than condition code F (unserviceable). The SSG should program the SBSS to enter condition code G on directed returns for AWP items.

### **Implementation Actions**

The AFSEB agreed with the concept of our two business rules and asked ACC to conduct a test of the rules. We provided *all the MAJCOMs* two lists: one for the redistributable and one for the items to NRTS to the depot. ACC was to test the process and actually direct some redistribution and NRTS actions. The test is currently underway.

The AFSEB was reluctant to implement a manual process and wanted the system (to report AWP conditions, determine the items to redistribute and NRTS and to direct those actions) to be automated. We agree it needs to be automated. Besides reducing the manual workload, automating the AWP reporting system will make the data used by the business rules cleaner.

To automate the process the AF needs to implement an AWP Reporting system (or reinstitute the old XE7 and XE8 AWP reporting system). Appendix B provides a functional description (the basis for a Process Change Request, PCR, and/or C4RD) of an AWP reporting system. The AWP reporting system will report AWP occurrences and link the SRUs (and consumable component parts) to the specific LRU AWP occurrence. The reporting system will ensure the SRU gets the correct repair and distribution priority and will provide a means to update, check and correct the AFMC indenture file. The AWP reporting system will also automate the redistribution and directed NRTS actions, that is the centralized reply to the AWP report will direct a shipment when appropriate.

The business rules must be included into the D035 Stock Control System and/or EXPRESS to identify what items to direct shipment. Once directed, the AWP reporting system will execute the shipment (send the shipment transactions). Appendix C provides a functional description of the business rules.

During the MAJCOM's review of the listed items identified for redistribution and retrograde, AMC identified that some items were incorrectly identified as excess at Centralized Repair Activities (CRA). A CRA can and will have excess AWP and DIFMs, since the CRA is repairing for the needs of other supported bases. Our proposed business rules must consider CRA activities; implementation of the business rules should provide a method to exclude selected (CRA) bases from being designated as a donor base for redistribution actions. Then the worldwide excess rule should be set at a higher level, perhaps 50 or 100, for CRA activities.

We propose the implementation of the AWP proposals in this report be managed as part of the Seamless IPT 1, AF-Managed Items, Initiatives. The implementation actions require close coordination between the wholesale and retail systems. Note the long-term goal of Seamless Supply is to make centralized repair decisions regardless of where the repair takes place. So a central supply system would make the determination and prioritization of a base repair decision at the time the part was pulled for the weapon system.



## CHAPTER 3

### CONCLUSIONS AND RECOMMENDATIONS

#### CONCLUSIONS

1. The Air Force has over 15000 AWP end items at the bases and for 63 percent of the items (base and worldwide excess items) there is little or no chance to reduce the number of AWP's with the current system.
  - EXPRESS will not prioritize repair of component SRUs high enough to repair AWP LRUs that are excess to a base's need even if there is a need at another base (15% of the AWP conditions).
  - EXPRESS will (correctly) not prioritize highly the repair of component SRUs to repair worldwide excess AWP LRUs (48% of the AWP conditions).
2. EXPRESS 3.1 implemented the AFSEB approved proposal to prioritize the SRU with the LRU priority for all AWP LRU conditions including Spares Priority Release Sequence (formally BOA Release Sequence) category items.
3. Implementing our proposed business rule to redistribute serviceable items from bases with excess AWP to bases with a greater need will:
  - Increase the AF's aircraft availability.
  - Reduce expected backorders.
  - Increase the repair priority of SRUs, thereby reducing the number of AWP conditions.
4. Implementing our business rule proposal to NRTS worldwide excess AWP LRUs will:
  - Prevent the base from inefficiently using stock fund dollars to repair unneeded items.
  - Allow for accurate recording of failures and improved retention and requirements computations.
  - Significantly reduce the number of AWP items at the base.
5. Implementing an AWP Reporting system will:
  - Link the SRU to the specific LRU AWP occurrence.
  - Ensure the SRU gets the correct repair and distribution priority.
  - Provide a means to update and correct AFMC's indenture file automatically.
  - Implement our proposed business rules to redistribute and direct NRTS actions.
6. Implementing our AWP proposals will:

- Increase the AF mission support by reducing backorders and increasing aircraft availability.
- Make better use of stock fund dollars.
- Reduce base AWP.
- Increase SRU repairs (using the right priority).
- Automate the base and worldwide excess business rules.

## **RECOMMENDATIONS**

1. Implement our business rule to redistribute serviceable items from bases with excess AWP assets to bases where it will reduce worldwide EBOs. **OPR: HQ AFMC/LG and the IL SPO (Seamless IPT 1)**
2. Implement our business rule to direct return of worldwide excess items. **OPR: HQ AFMC/LG and the IL SPO (Seamless IPT 1)**
3. Implement our proposed AWP Reporting System. **OPR: IL SPO (Seamless IPT 1)**

## **Appendix A**

### **Plan for Addressing Excess AWP 30 September 1999**

#### **Data sources:**

- **D035C**
  - RO, due-outs, serviceables on-hand (POS&RSP), DIFM, Serviceables in-transit
  - By NSN/SRAN then roll to sub-group master
  - Need latest data, then data from at least 2 months earlier to identify DIFM that has remained for at least 2 months (point at which DIFM is expensed)
- **D035B**
  - Requisitions with advice code "6L" will be used to infer base AWP
- **D035E**
  - Daily Demand Rate
- **EXPRESS NSN-table**
  - Whether or not the item is turned on to run through EXPRESS
    - Will use to ensure we only move serviceable assets for 'LRU families' turned-on in EXPRESS
- **D041**
  - the latest reqmts data that shows current and future reqmts by item
    - will use to determine whether item reqmts increase in future
  - levels of indenture
    - will use to identify LRU-SRU relationships, and item-weapon system relationships (Brad Baskin request)
- **D043**
  - Exchange prices
    - Will use to quantify lost 'opportunity cost' of NRTSing worldwide excesses
- **ACC**
  - SRAN listing
    - Initially, will only do for the 19 ACC SRANs provided by Capt Pearson

#### **NRTSing world-wide Excesses**

##### **Issues:**

How to update LRU demands? (do we really want to record these as NRTS? – probably not)

- If we do, how to measure increase in forecasted reqmt? (assume 15 months used to compute daily demand rate)

How much will move?

O&M 'impact?' (after 60 days, costs are expensed)

### Initial Business Rules:

- Only do for LRUs as identified by D041.
- When computing world-wide excess DIFM, only consider DIFM that is currently excess at a base (don't allow another bases excess serviceables to cause DIFM within the RO at a base to be considered world-wide excess)
- Reduce current world-wide excess DIFM by any future growth in reqmt, where possible

### Approach:

1. NRTSing back world-wide excesses
  - 1.1. Compute world-wide excess DIFM
    - 1.1.1. Compute Sum of Base Excess DIFM
      - 1.1.1.1. Compute Base Excess DIFM
        - 1.1.1.1.1. Only do for LRUs (as identified by D041) and for non-depot SRANs (FB2029, FB2039, FB2049, FB2059, and FB2065)
        - 1.1.1.1.2. For each item/SRAN, compute Excess Assets as assets (POS + RSP + DIFM + In-Transit assets) minus requirements (RO + due-outs), floored at zero
        - 1.1.1.1.3. For each item/SRAN, compute Base Excess DIFM as minimum of Excess Assets (1.1.1.1.2) and DIFM
      - 1.1.1.2. For each item, sum Base Excess DIFM (1.1.1.1.3) across SRANs to get Sum of Base Excess DIFM
    - 1.1.2. Compute world-wide excess DIFM assuming no maldistribution of serviceables
      - 1.1.2.1. Only do for LRUs (as identified by D041) and for non-depot SRANs (FB2029, FB2039, FB2049, FB2059, and FB2065)
      - 1.1.2.2. For each item, compute World-wide Assets as sum across bases of assets (POS, RSP, DIFM, In-Transit) and compute World-wide Reqmts as sum across bases of reqmts (RO, due-outs)
      - 1.1.2.3. For each item, compute World-wide Excess Assets as World-wide Assets (1.1.2.2) minus World-wide Reqmts (1.1.2.2), floored at zero
      - 1.1.2.4. For each item, compute Initial World-wide Excess DIFM as minimum of world-wide DIFM and World-wide Excess Assets (1.1.2.3)
    - 1.1.3. For each item, compute World-wide Excess DIFM as minimum of Initial World-wide Excess DIFM (1.1.2.4) and Sum of Base Excess DIFM (1.1.1.2)
  - 1.2. Compute WW Excess DIFM to NRTS
    - 1.2.1. For each item, compute Increase in Reqmt as greatest future reqmt minus current reqmt, floored at zero
    - 1.2.2. Compute WW Excess DIFM to NRTS as WW Excess DIFM (1.1.3) minus Increase in Reqmt (1.2.1)
  - 1.3. Compute Earlier Base Excess DIFM from older data (at least 2 months)
    - 1.3.1. Redo 1.1.1.1 with older data
  - 1.4. Compute Old Base Excess DIFM as minimum of current Base Excess DIFM (1.1.1.1) and Earlier Base Excess DIFM (1.3.1)

### 1.5. Build Prioritized List of NRTS Actions

- 1.5.1. Identify LRU with most World-wide Excess DIFM (1.1.3)
- 1.5.2. Identify Base where LRU has most Base Excess DIFM (1.1.1.1.3)
- 1.5.3. Add one NRTS action for LRU/Base to list, along with Exchange Cost and Flag to indicate whether or not it is Old Base Excess DIFM

### **Output Report Format:**

NRTS ID – counter for each NRTS action

NSN – item to NRTS

SRAN – SRAN from which to NRTS

NSN NRTS Count – counter for number of NRTS for this item

NSN/SRAN NRTS Count – counter for number of NRTS for this NSN from this SRAN

Remaining World-wide Excess – remaining WW excess for this item after doing this NRTS

Remaining Base Excess – remaining base excess for this item after doing this NRTS

NSN/SRAN RO – RO for item at SRAN

NSN/SRAN Due-Outs – Due-outs for item at SRAN

NSN/SRAN POS – POS for item at SRAN

NSN/SRAN RSP – RSP for item at SRAN

NSN/SRAN DIFM – DIFM for item at SRAN

NSN/SRAN Serviceables In-transit – In-transits for item to SRAN

Old Excess Flag – flag for whether or not this is for NRTS of item at base that's been there at least 2 months

Exchange Cost – exchange cost for this item

Weapon System – weapon system application for this item

Daily Demand Rate – current DDR for this item/SRAN from D035E

Projected Daily Demand Rate – estimated new DDR for this item/SRAN assuming base does this NRTS (and assuming current DDR based on 18 months)

Estimated Days of Supply – On-hand assets divided by Projected Daily Demand Rate

### **Moving Serviceable LRUs to Increase SRU AWP Priorities**

#### **Issues:**

How to measure increase in SRU priority when move serviceable LRUs?

- Even though priority will increase, can't guarantee depot will fix due to constraints
- How to make movements happen?

#### **Initial Business Rules:**

- Only move LRUs that are repaired by EXPRESS and that have SRUs repaired by EXPRESS that have AWP requisitions at the donor base
- Only move LRUs from bases that have excess DIFM
- Prioritize movement of serviceables between bases based on net world-wide reduction in expected backorders (EBOs)

- Compute pipeline by backing-in from RO (assume pipeline + 2 standard deviations of pipeline used to compute RO and assume Poisson pipeline distribution)
- Prioritize movement of serviceables as long as there is a net world-wide reduction in EBOs (this is the 'sort value')
- Only use POS+RSP assets when computing EBOs for donor bases (don't use DIFM or in-transits)
- Use all assets (POS+RSP+DIFM+In-transits) when computing EBOs for recipient bases
  - A recipient base can't also be a donor base for the same item

### **Approach:**

2. Balancing LRU serviceables to increase SRU AWP priorities
  - 2.1. Identify Candidate Donor LRU/SRANs
    - 2.1.1. Only do for EXPRESS-repaired LRUs that have SRUs (as identified by D041) and for non-depot SRANs (FB2029, FB2039, FB2049, FB2059, and FB2065) and initially only for ACC SRANs
    - 2.1.2. Compute Base Excess DIFM
      - 2.1.2.1. For each item/SRAN, compute Excess Assets as assets (POS + RSP + DIFM + In-Transit assets) minus requirements (RO + due-outs), floored at zero
      - 2.1.2.2. For each item/SRAN, compute Base Excess DIFM as minimum of Excess Assets (2.1.2.1) and DIFM
    - 2.1.3. Identify Base AWP
      - 2.1.3.1. Only do for EXPRESS-repaired SRUs indentured to EXPRESS-repaired LRUs (in D041)
      - 2.1.3.2. Only do for SRUs indentured to LRUs at bases where the LRU has Base Excess DIFM (2.1.2)
      - 2.1.3.3. For each LRU determine the SRU with the most "6L" advice-coded requisition quantities at the base
    - 2.1.4. Candidate Donor LRU/SRANs are EXPRESS-repaired LRUs that have EXPRESS-repaired SRUs (as identified by D041) at bases where the LRU has excess DIFM and the EXPRESS-repaired SRUs have at least one "6L" advice-coded requisition
  - 2.2. For each candidate LRU, identify Lateral Resupply Actions
    - 2.2.1. For each candidate SRAN for the LRU, compute Donor Base Expected Backorder (EBO) Increase
      - 2.2.1.1. Compute Current EBOs at Donor Base
        - 2.2.1.1.1. Compute Current Pipeline at Donor Base as backed-in from RO
        - 2.2.1.1.2. Use current on-hand serviceables (POS + RSP) as stock
        - 2.2.1.1.3. Compute EBOs assuming Poisson pipeline distribution
      - 2.2.1.2. Compute EBOs at Donor Base if lose one serviceable
      - 2.2.1.3. Compute Donor Base EBO Increase as 2.2.1.1 minus 2.2.1.2
    - 2.2.2. Identify Best Recipient Base

- 2.2.2.1. Identify Potential Recipient Bases as initially only ACC SRANs
- 2.2.2.2. For each Potential Recipient Base compute Recipient Base EBO Reduction
  - 2.2.2.2.1. Compute Current EBOs at Potential Recipient Base (same as 2.2.1.1)
  - 2.2.2.2.2. Compute EBOs at Potential Recipient Base if gain one serviceable (same as 2.2.1.2)
- 2.2.2.3. Identify Best Recipient Base as Potential Recipient Base with most EBO reduction
- 2.2.3. If Best Recipient Base EBO reduction (2.2.2.3) is greater than Donor Base EBO increase (2.2.1.3) then recommend lateral resupply action

### **Output Report Format:**

Lateral Resupply ID – counter for each Lateral Resupply action  
 BO Reduction – Net world-wide backorder reduction from movement of item  
 NSN – item to lateral  
 Weapon System – weapon system application for this item  
 Donor SRAN – SRAN from which to lateral  
 Recipient SRAN – SRAN to which to lateral  
 Donor SRAN RO – RO for item at donor SRAN  
 Donor SRAN Due-Outs – Due-outs for item at donor SRAN  
 Donor SRAN POS – POS for item at donor SRAN  
 Donor SRAN RSP – RSP for item at donor SRAN  
 Donor SRAN DIFM – DIFM for item at donor SRAN  
 Donor SRAN Serviceables In-transit – In-transits for item to donor SRAN  
 NSN/Donor SRAN Lateral Count – counter for number of laterals for this NSN from this SRAN  
 Donor SRAN Daily Demand Rate – current DDR for this item/SRAN from D035E  
 Recipient SRAN RO – RO for item at recipient SRAN  
 Recipient SRAN Due-Outs – Due-outs for item at recipient SRAN  
 Recipient SRAN POS – POS for item at recipient SRAN  
 Recipient SRAN RSP – RSP for item at recipient SRAN  
 Recipient SRAN DIFM – DIFM for item at recipient SRAN  
 Recipient SRAN Serviceables In-transit – In-transits for item to recipient SRAN  
 NSN/Recipient SRAN Lateral Count – counter for number of laterals for this NSN to this SRAN  
 Recipient SRAN Daily Demand Rate – current DDR for this item/SRAN from D035E  
 NSN Lateral Count – counter for number of laterals for this item  
 AWP SRU NSN – SRU causing most AWP for LRU at donor SRAN  
 Source of Repair for AWP SRU – SOR for SRU causing most AWP for LRU at donor SRAN

## **Appendix B**

### **Awaiting Parts (AWP) and Execution and Prioritization of Repair Parts Support System (EXPRESS)**

#### **Functional Requirements**

This paper highlights the functional requirements for the future AF system to report and manage Awaiting Parts (AWP) items. These functional requirements were documented in AFLMA Letter Report LS9827500, AWP and EXPRESS Analysis, dated March 1998. Note the AWP Reporting System functional requirements highlighted below were approved the by 62<sup>nd</sup> Air Force Supply Executive Board (AFSEB).

**AWP Reporting Requirement.** For each specific AWP occurrence, the base will report to AFMC data systems (D035 and/or EXPRESS) all AF-managed SRU components by NSN required to restore the LRU to a serviceable condition. Note the component will be identified to the LRU end item (DIFM) document number so the component is tied to a particular AWP occurrence. So the same SRU can be tied to multiple AWP LRUs, but each will have its own unique document number. The base will also identify all other (non-AF managed) component parts by NSN that are required by the LRU. There are three types or categories of information that will be passed from SBSS to the wholesale systems. AFMC systems will use the base AWP report to:

- **Identify Indenture Relationships.** Information will be provided to the wholesale systems, which will update or verify the AFMC indenture data file. The XE7 transaction will provide an automated input to the indenture file or provide a management notice for external reconciliation if the item is not currently included in the indenture file. The transaction will also identify the indenture relationship for the specific AWP occurrence, that is, it will link the SRU directly to the LRU. This will ensure the SRU receives the correct repair and distribution priority (sort value).
- **Provide Visibility of the AWP Components for Execution Decisions.** First this will ensure the SRU is linked the correct LRU and therefore the SRU will receive the correct (LRU) repair and distribution priority. Secondly, information on the number of items a LRU is AWP for allows EXPRESS to distribute the SRU that makes the LRU serviceable the fastest, all else being equal. For example, if two LRUs are AWP for the same SRU and have the same sort value, the SRU should go to the LRU that is only AWP for one SRU before going to an LRU with multiple AWP components.



- **Centralized Repair Decisions.** AWP reporting will also allow an automated method to direct evacuation of an LRU (and any AWP components on-hand) back to the depot. Evacuation may be appropriate for critical spare parts and component part visibility would allow appropriate cross-cannibalization decisions. The system also would automatically direct evacuation for worldwide excess LRUs. Using the AWP reporting visibility, the AF will develop business rules to automate evacuation decisions. The XE8 AWP reporting system reply will be used to direct return of repairable assets (either critically needed or worldwide excess items) to the depot.

#### Data Requirement

Currently EXPRESS sees there is a LRU in DIFM status (there may not be a requisition for the LRU) at the base and it sees a requisition (6L Advice Code) for the SRU. Note AFMC (D035) has information that the LRU is AWP and should provide that information to EXPRESS.

The base AWP reporting transaction (XE7) will contain the following information:

- The SRU requisition number and the LRU NSN (and its end item document number) it is a component for.
- The NSN of all component parts the LRU is AWP for and the supply status for each of the AWP components. The supply status refers to the source of supply status code (BA, BB) and the estimated delivery date. The XE7 transaction will provide the latest (up to date) estimated delivery date for each component.
- MICAP indicator (if the LRU has a MICAP requisition currently outstanding). This will key EXPRESS to look for an LRU requisition. By policy, the retail account cannot order both the end item and the components MICAP at the same time. So if the LRU has a MICAP requisition, the SRU should receive the commensurate LRU priority.
- Identification of the specific LRU the SRU is for – LRU 1, LRU 2, etc. so EXPRESS can see the link between the SRU and the specific LRU it is required for. The base DIFM document number and the components associated with that document number will be reported via the XE7. So linking the end item to its components for a specific AWP occurrence will be possible.

#### When to Generate the Transaction

The AWP reporting transaction will be generated on an AWP incident or any change to the AWP status (LRU goes from needing two components to three components or the status of the component changes). The focus is to improve EXPRESS decision making.

Each AWP report (XE7 transaction) should contain all the information listed above and should overlay any existing data (from previous reports) in the wholesale systems. To ensure that EXPRESS had the most current AWP information from the bases, AFMC will, upon receipt of an AWP reporting transaction from a base, send back a confirmation

(XE8) of receipt to SBSS. If the SBSS doesn't get a confirmation of receipt within a specified period, it should retransmit the current AWP information. In addition, the AFMC system must have the capability to send (XEX) queries to the SBSS to get updated AWP reporting; and receive (XE9) responses that will indicate that disposition instructions have been received.

## **Appendix C**

### **DRAFT**

#### **AWP Reporting Requirements**

1. The SBSS shall report all AWP component parts requisitions to AFMC Data Systems. Note this functional description provides a format to report all component parts regardless of the source of supply.

- Generate XE7s with action codes A, C, D and I.
  - A for new AWP component due-outs.
  - C for changes to component due-outs and requisition status code changes.
  - D for when AWP due-outs are cancelled or released.
  - I for responses to AWP interrogation requests to AFMC systems (Document Identifier XEX) when AWP due-outs exist for the end item document number being interrogated.

The intent is to report at end of day any changes to the AWP status. There is an option to provide the data on a real time transaction driven bases (after each transaction), but that is unnecessary. Once a day reporting is sufficient.

2. AFMC Data Systems shall receive XE7s from the SBSS. AFMC data systems will check the indenture file to see if the SRU is indentured to the LRU. If the SRU is not included as indentured in the AFMC indenture file, produce a management notice for the equipment specialist to review and update the indenture file as appropriate. (Note: an option is to automatically update the indenture file).
3. AFMC Data Systems shall respond to XE7s with XE8s.

- AWP Response codes are 1 and 2.
  - 1 means hold DIFM asset
  - 2 means to evacuate DIFM asset.

Note the AFMC system will include business rules (not part of this functional description) to direct returns to the depot. Currently the projected use is for returning worldwide excess AWP items to the depot. Only one XE8 response is required for a given end-item NSN, end-item document number, and base combination.

4. The SBSS shall receive XE8s from AFMC Data Systems.

- For response code **1**, set a code on the end-item DIFM detail to indicate AFMC has directed the AWP end-item to be held and store the date of the XE8.
  - For response code **2**, produce a management notice, set a code on the end-item DIFM detail to indicate AFMC has directed the evacuation of the reparable on the end item DIFM detail, and the store the date of the XE8.
5. The SBSS will respond to an XE8 directing evacuation with an XE9 to indicate receipt of disposition instructions.
    - Response code **R** will be used initially to respond to all XE8s.
  6. The SBSS shall enable the user to input an XE9 to notify AFMC systems that the DIFM will not be evacuated. The input will change an indicator on the DIFM detail to indicate the AFMC directed evacuation has been denied and produce an XE9-denial and send it to AFMC.
    - Response code **D** will be used to deny AFMC directed evacuation.
  7. The SBSS shall include the DIFM details that AFMC has directed evacuation on a separate section of the DIFM Management listing.
  8. AFMC will accept an XE9 indicating receipt of the disposition instructions from the base. The AFMC data system will record this so as not to generate another shipment (evacuation) order to that SRAN for that AWP occurrence. AFMC will follow-up with XE8 on AWP DIFM occurrences that the SBSS has not responded to after 10 days. AFMC will record any denials and will not generate any other XE8 shipment notice for that AWP DIFM occurrence at that base. AFMC may generate another shipment notice for the same LRU NSN (but a different AWP DIFM occurrence) should other AWP occurrences meet the criteria for return.
  9. The SBSS shall at the time of shipment from the DIFM detail, send an XE9 indicating the DIFM acknowledging evacuation of a given DIFM when a DIFM detail indicates AFMC has directed the evacuation of the DIFM item.
    - Response code **S** will be used to acknowledge shipment.
  10. AFMC Data Systems shall produce an XEX to query the SBSS AWP data. This request can be by end item document number or for all end items of a given NSN. The AFMC data system will generate an XEX whenever the reported status is past due or there is no requisition for the AF-managed SRU that is indicated as needed.
  11. The SBSS shall receive and process an XEX. The XEX will produce an XE7 with the latest data for the end item identified on the XEX.

- XE7 with action code **D** and blank end item document number when no end items in AWP status are on-hand at the base.
  - XE7s with action code **I** in response to XEX when AWP data is available.
12. The SBSS shall assess an additional charge equal to Mark-up price 90 days after AFMC has directed the evacuation of the reparable.
13. The SBSS shall grant credit for only the Mark-up price on DIFMs at the time of turn-in when AFMC has directed the evacuation of the reparable.

#### AWAITING PARTS REPORT (XE7)

POS	NO POS	FIELD DESIGNATION	REMARKS/NOTES
1-3	3	Document Identifier Code	XE7
4-6	3	End-Item Routing Identifier	
7	1	Action Code	A, C, D, and I
8-22	15	End-Item National Stock Number	
23-36	14	End-Item DIFM Document Number	
37-39	3	End Item Quantity	
40-54	15	Component part NSN	
55-68	14	Component part requisition number	
69-73	5	Component part requisition quantity	
73-75	3	Component part routing identifier	
75-76	2	Component part requisition status code	Reflects the worst status for a given requisition
76-79	4	Component part estimated shipping date	Reflects the worst status for a given requisition
79-83	4	Date of Report	77 = Calendar Year 78-80 = Julian Date

If necessary, the reporting RID can be added. The reporting SRAN can be derived from the first 6 positions of the component part requisition number.

Note the XE7 provides the end item document number, which links the component part to a specific AWP occurrence. (For example, if there are two occurrences of LRU 1 where one is missing SRU A and the other is missing SRU B, there will be two XE7 transactions with two different end item document numbers and they will be identified as separate LRU AWP occurrences. If both SRUs are needed for one LRU, then both XE7s will have the same end item document number).

**AWAITING PARTS RECEIPT ACKNOWLEDGEMENT (XE8)**

<b>POS</b>	<b>NO POS</b>	<b>FIELD DESIGNATION</b>	<b>REMARKS/NOTES</b>
1-3	3	Document Identifier Code	XE8
4-6	3	Routing Identifier	To RID (Reporting Base)
7	1	Blank	
8-22	15	End Item NSN	
23-24	2	Blank	
25-30	5	Blank	
31-38	8	Blank	
39	1	Advice Code	
40-42	3	Blank	
43-56	14	End-Item Document Number	
57-76	20	Blank	
77-80	4	Date	77= calendar year 78-80 Julian Date

**AWAITING PARTS INTERROGATION (XEX)**

<b>POS</b>	<b>NO POS</b>	<b>FIELD DESIGNATION</b>	<b>REMARKS/NOTES</b>
1-3	3	Document Identifier Code	XEX
4-6	3	End-Item Routing Identifier	
7	1	Blank	
8-22	15	End Item NSN	
23-24	2	Blank	
25-30	5	Blank	
31-38	8	Blank	
39	1	Blank	
40-42	3	Blank	
43-56	14	End-Item Document Number or Blank	Document Number for a specific end item. Blank for all end items with a given NSN.
57-76	20	Blank	
77-80	4	Date	77= calendar year 78-80 Julian Date

### AWAITING PARTS DISPOSITION RESPONSE (XE9)

POS	NO POS	FIELD DESIGNATION	REMARKS/NOTES
1-3	3	Document Identifier Code	XE9
4-6	3	End-Item Routing Identifier	
7	1	Blank	
8-22	15	End Item NSN	
23-24	2	Blank	
25-30	5	Action Quantity	From DIFM Detail
31-38	8	Blank	
39	1	Advice Code	See Note
40-42	3	Blank	
43-56	14	End-Item Document Number	
57-76	20	Blank	
77-80	4	Date	77= calendar year 78-80 Julian Date

Note: Advice code R will be used to indicate the XE8 disposition has been received. Advice code R can be used could be treated as “in suspense” by AFMC system and might be subject to some periodic follow-up. Advice code D will be used to indicate the directed evacuation action has been denied. Advice code S will be used when the item is shipped.